IN THE CLAIMS:

Please amend claims 1, 3-5 as indicated in the following list of pending claims:

PENDING CLAIMS

1. (Currently Amended) A high frequency electrosurgical system comprising:

an electrical power generator configured to produce electrical power at a frequency of at least about [[1]] 3.4 MHZ to not more than about 10 MHz in an essentially sinusoidal waveform having a total harmonic distortion of less than 5%; and

a controller configured to control the electrical power from the electrical power generator;

a distal interface pod in communication with the power generator to receive voltage and current, configured to present a desired load to the power generator, and to monitor the voltage and current received from the power generator;

an electrosurgical tool configured to receive electrical power from the generator through the distal interface pod and deliver the received electrical power to an electrosurgical site.

2. (Cancelled)

3. (Currently Amended) A system as defined in claim 1[[,]] ~~further comprising a~~ wherein the distal interface pod in communication with the power generator ~~to receive voltage and current~~[[,]] is configured to present a desired load to

the power generator, and to monitor the voltage and current received from the power generator and deliver the voltage and current to the electrosurgical tool.

4. (Currently Amended) A system as defined in claim 3, wherein the distal interface pod is located in proximity to the electrosurgical tool.

5. (Currently Amended) A system as defined in claim 1, wherein the electrical power generator is configured to produce an electrical power at a frequency ~~between about 3 MHz and~~ of not more than about 8 MHz.

6. (Previously Presented) A system as defined in claim 1, wherein the electrical power generator is configured to produce an electrical power at a frequency about 3.4 MHz to about 5 MHz.

7. (Original) A system as defined in claim 1, wherein the power generator further comprises:

a control unit configured to generate a control signal;

a splitter, in communication with the control circuit and configured to produce a plurality of signals that are duplicates of the control signal;

a plurality of power amplifiers in communication with the plurality of signals that are duplicates of the control signal, configured to produce a high powered output signal in response to the control signal; and

a power combiner connected to the plurality of high powered output signals of the plurality of power amplifiers and configured to sum the plurality of high powered output signals and produce a single high powered output.

8. (Original) A system as defined in claim 1, wherein the power generator further comprises:

a feedback circuit configured to accept user inputs and at least one sense circuit signal, and to output a feedback modified control signal; and

a signal generator configured to accept the user signal input and feedback control signals, and to output a signal generator control signal in response, wherein the control signal is a low power representation of the desired output of the power generator.

9. (Original) A system as defined in claim 8, wherein the at least one sense circuit signal comprises a signal sensing the current delivered by the electrosurgical tool to the patient.

10. (Original) A system as defined in claim 8, wherein the at least one sense circuit signal comprises a signal sensing the voltage delivered by the electrosurgical tool to the patient.

11. (Original) A system as defined in claim 1 further comprising a remote switch configured to turn the output of the power generator on and off.

12-31. (Cancelled)

32. (Withdrawn) A method of using a high frequency generator for cutting tissue, the method comprising:

generating a high frequency, essentially sinusoidal waveform; and

applying the waveform to an electrosurgical tool used to cut heterogeneous tissue.

33. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a frequency between about 1 MHz and about 14 MHz.

34. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a frequency of about 3 MHz to about 8 MHz.

35. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a frequency of about 3.4 MHz to about 5 MHz.

36. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a power level of up to 1,000 watts.

37. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a power level of about 500 watts to about 1,000 watts.

38. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a voltage level of up to 700 volts rms.

39. (Withdrawn) A method as defined in claim 32 wherein the essentially sinusoidal waveform has a voltage level of about 300 volts to about 600 volts.

40. (Withdrawn) A method as defined in claim 32, wherein the essentially sinusoidal waveform has a current capacity of up to 5 amps.

41. (Withdrawn) A method of generating a high frequency signal for use in an electrosurgical system, the method comprising:

generating a high frequency control signal;

applying the control signal to at least one power delivery unit configured to produce a high power waveform in response to the control signal;

filtering the high power waveform to produce an essentially sinusoidal output waveform; and

adjusting the control signal in response to sensing of desired waveform parameters at an electrosurgical tool.

42. (Withdrawn) A method as defined in claim 41, wherein the output waveform is a sinusoidal waveform with a frequency between about 1 MHz to and about 14 MHz.

43. (Withdrawn) A method as defined in claim 41, wherein the output waveform is a sinusoidal waveform with a frequency of about 3 MHz to about 8 MHz.

44. (Withdrawn) A method as defined in claim 41, wherein the output waveform is a sinusoidal waveform with a frequency of about 3.4 MHz to about 5 MHz.

45. (Withdrawn) A method as defined in claim 41, wherein the output waveform is a sinusoidal waveform with a power level of up to 1,000 watts.

46. (Withdrawn) A method as defined in claim 41, wherein the output waveform has a power level of about 500 watts to about 1,000 watts.

47. (Withdrawn) A method as defined in claim 41, wherein the output waveform is a sinusoidal waveform with a voltage level of up to 700 volts rms.

48. (Withdrawn) A method as defined in claim 41 wherein the output waveform has a voltage level of about 300 volts to about 600 volts.

49. (Withdrawn) A method as defined in claim 41, wherein the output waveform is a sinusoidal waveform with a current capacity of up to 5 amps.

50. (Withdrawn) A method as defined in claim 41, wherein the output waveform has any out of band frequencies attenuated at least 6 dB.

51. (Cancelled)

52. (Previously presented) The high frequency electrosurgical system as defined in claim 1, further comprising:

a splitter, in communication with the control unit and configured to produce a plurality of duplicates of the control signal;

a power amplifier in communication with each of the plurality of duplicates of the control signal, the power amplifiers configured to produce electrical power in response to the control signal; and

a power combiner connected to each of the electrical power output of the power amplifiers and configured to sum the plurality of the electrical power output of the power amplifiers and produce a single electrical power output.

53. (Original) A high frequency electrosurgical generator as defined in claim 52, wherein the plurality of duplicates of the control signal are four duplicates.

54. (Original) A high frequency electrosurgical generator as defined in claim 52, wherein there are four power amplifiers, one each connected to each of the four duplicates of the control signal.

55. (Previously presented) A high frequency electrosurgical system as defined in claim 1, wherein the control unit further comprises:

a set of user inputs configured to receive selection inputs desired by a user and output a user command signal;

a feedback circuit in communication with the user inputs and a distal interface pod, and configured to accept the user command signal and at least one sense circuit signals from the distal interface pod, and

to output a feedback control signal in response to user command sense circuit signals; and

a signal generator in communication with the user inputs and the feedback circuit, and configured to accept the user command and feedback control signals, and to output a control signal in response to the user command and feedback control signals, wherein the control signal is a low power representation of the desired output of the power generator.

56. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the at least one sense circuit signal comprises a signal sensing the electrical current delivered by the electrosurgical tool to the patient.

57. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the at least one sense circuit signal comprises a signal sensing the voltage delivered by the electrosurgical tool to the patient.

58. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the signal generator further comprises:

an oscillator configured to output a periodic waveform;

a low pass filter connected to the output of the oscillator, configured to receive the periodic waveform and to output an essentially sinusoidal waveform at the same frequency as the periodic waveform;

a voltage controlled amplifier connected to the output of the low pass filter and in communication with the feedback circuit, configured to receive the sinusoidal waveform and output an amplified sinusoidal waveform, wherein the sinusoidal waveform amplitude is varied in response to the feedback control signal;

a filter connected to the output of the voltage controlled amplifier, configured to receive the amplified sinusoidal waveform and output a filtered amplified waveform wherein harmonics are attenuated;

a safety switch connected to the output of the filter and in communication with the user controls, configured to pass or block the filtered amplified waveform in response to an output received from user controls; and

a buffer connector to the output of the safety switch, configured to accept the filtered amplified waveform passed by the safety switch and to output a control signal.

59. (Previously presented) A high frequency electrosurgical system as defined in claim 58, wherein the periodic waveform is sinusoidal.

60. (Previously presented) A high frequency electrosurgical system as defined in claim 58, wherein the periodic waveform is a square wave.

61. (Previously presented) A high frequency electrosurgical system as defined in claim 55, further comprising a remote switch in communication with the control unit, configured to turn the output of the power generator on and off.

62. (Previously Presented) A high frequency electrosurgical system as defined in claim 55, wherein the control signal is a sinusoidal waveform having a frequency between about 1 MHz and about 10 MHz.

63. (Previously Presented) A high frequency electrosurgical system as defined in claim 55, wherein the control signal is a sinusoidal waveform having a frequency of about 3 MHz to about 8 MHz.

64. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the control signal is a sinusoidal waveform having a frequency of about 3.4 MHz to about 5 MHz.

65. (Previously Presented) A high frequency electrosurgical as defined in claim 55, wherein the electrical power generated for use with an electrosurgical tool is a sinusoidal waveform having a frequency between about 1 MHz and about 10 MHz.

66. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the electrical power generated for use with an electrosurgical tool is a sinusoidal waveform having a frequency of about 3 MHz to about 8 MHz.

67. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the electrical power generated for use with an electrosurgical tool is a sinusoidal waveform having a frequency of about 3.4 MHz to about 5 MHz.

68. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the electrical power generated for use with an electrosurgical tool may be up to 1,000 watts.

69. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the electrical power generated for use with an electrosurgical tool may be up to 700 volts rms.

70. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein the electrical power generated for use with an electrosurgical tool may be up to 5 amps of current.

71. (Previously presented) A high frequency electrosurgical system as defined in claim 55, wherein generated electrical power is gated on and off at a desired frequency to produce a gated power signal.

72. (Original) A high frequency electrosurgical system as defined in claim 71, wherein the duty factor of the generated electrical power is selected to have a desired ratio between the on and off periods of the gated power signal.

73. (Original) A high frequency electrosurgical system as defined in claim 72, wherein the duty factor is between about 2% to 100%.

74. (Original) A high frequency electrosurgical system as defined in claim 72, wherein the duty factor is between 20% to 40%.

75. (Original) A high frequency electrosurgical system as defined in claim 72, wherein the duty factor is between 50% to 100%.

76. (Original) A high frequency electrosurgical system as defined in claim 71, wherein when the generated electrical power is gated on the electrical power follows a ramped rectangular envelope.

77. (Original) A high frequency electrosurgical system as defined in claim 71, wherein when the generated electrical power is gated on the electrical power follows a trapezoidal rectangular envelope.

78. (Original) A high frequency electrosurgical system as defined in claim 71, wherein when the generated electrical power is gated on the electrical power follows a zero crossing, switched, rectangular envelope.